

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

1. (original): An optical inspection system, comprising:  
  
a light source outputting an annular beam;  
  
an objective lens focusing the annular beam at a target; and  
  
a detector receiving light scattered from the target, through the objective lens.
  
2. (original): The optical inspection system as set forth in claim 1, wherein:  
  
the light source also outputs a circular beam;  
  
the objective lens focuses the circular beam at the target; and  
  
the detector receives light reflected from the target through the objective lens.
  
3. (original): The optical inspection system as set forth in claim 2, wherein the light source produces a selected one of the annular beam and the circular beam in response to a selection of imaging operation type.
  
4. (original): The optical inspection system as set forth in claim 3, wherein, when the imaging operation type is bright field imaging, the light source is controlled to produce the

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circular beam, and, when the image operation type is dark field imaging, the light source is controlled to produce the annular beam.

5. (original): The optical inspection system as set forth in claim 1, wherein:  
the detector receives the scattered light, as dark field detection, through a portion of the objective lens corresponding to an inner part of the annular beam; and  
the detector simultaneously receives light reflected from the target, as bright field detection, through a portion of the objective lens corresponding to an outer part of the annular beam.

6. (original): The optical inspection system as set forth in claim 1, further comprising:  
a scanner scanning the annular beam along a line in a given scanning direction to provide a scanned single annular beam; and  
a multiple beam splitter producing multiple annular beams of substantially identical intensity from the scanned single annular beam.

7. (original): The optical inspection system as set forth in claim 6, wherein:  
the detector receives the scattered light, as dark field detection, through a portion of the objective lens corresponding to an inner part of each of the annular beams; and

the detector simultaneously receives light reflected from the target, as bright field detection, through a portion of the objective lens corresponding to an outer part of each of the annular beams.

8. (original): The optical inspection system as set forth in claim 6, wherein the detector is a multiple line CCD camera, and wherein each of the multiple annular beams is imaged on a separate one of the lines of the multiple line CCD camera.

9. (original): An optical inspection system, comprising:  
a light source outputting a single beam;  
a scanner scanning the single beam along a line in a given scanning direction to provide a scanned single beam; and  
a multiple beam splitter producing multiple beams of substantially identical intensity from the scanned single beam.

10. (original): The optical inspection system as set forth in claim 9, wherein the multiple beam splitter produces the multiple beams with a diffractive optical element having uniform diffraction efficiency.

11. (original): The optical inspection system as set forth in claim 10, wherein the diffractive optical element is a Dammann grating.

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12. (original): The optical inspection system as set forth in claim 9, further comprising:  
  
an objective lens focusing the multiple beams at a target; and  
  
a detector receiving light returned from the target, through the objective lens  
  
wherein the detector includes a multiple line CCD camera, and wherein each of the multiple annular beams is received on a separate one of the lines of the multiple line CCD camera.

13. (original): An optical inspection system, comprising:  
  
a light source outputting a beam; and  
  
a scanner scanning the beam in a beam spot across a target, the target being movable in a target movement direction;  
  
wherein the beam has a scanning direction not perpendicular to the target movement direction.

14. (original): The optical inspection system as set forth in claim 13, wherein the beam spot travels a distance in the mechanical scanning direction that is greater than the distance in between scan lines in the mechanical scanning direction.

15. (original): An optical inspection system, comprising:  
  
a light source outputting a beam;

a confocal optical arrangement; and  
optics for focusing the beam at a target and directing captured light to a detector through the confocal optical arrangement.

16. (original): The optical inspection system as set forth in claim 15, further comprising a control unit controlling the focus of the optics based on:  
a light level threshold, and  
a light level signal indicative of light received by the detector through the confocal optical arrangement.

17. (canceled).

18. (original): An optical inspection system, comprising:  
a light source providing a beam of light through a pupil;  
a multiple beam splitter receiving the light through the pupil;  
a scanner receiving the multiple beams and providing scanned multiple beams;  
a beam splitter receiving the scanned multiple beams and illuminating a target through an objective lens;  
the objective lens collecting light returned back from the illuminated target and passing the collected light through the beam splitter to an imaging lens;

the imaging lens receiving the light passing through the beam splitter and focusing the light to a bright field channel detector.

19. (original): The optical inspection system as set forth in claim 18, wherein the bright field channel detector includes a multiple line CCD camera, and wherein each of the multiple annular beams is received on a separate one of the lines of the multiple line CCD camera.

20. (original): The optical inspection system as set forth in claim 18, further comprising:

an other beam splitter optically disposed between the imaging lens and the bright field channel detector; and

the light from the imaging lens passing through the beam splitter being focused also on a dark field channel detector.

21. (original): The optical inspection system as set forth in claim 20, wherein at least one of the bright field channel detector and the dark field channel detector includes a multiple line CCD camera, and wherein each of the multiple annular beams is received on a separate one of the lines of the multiple line CCD camera.

22. (original): An optical inspection system, comprising:

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a light source providing a beam of light;

a scanner receiving the light through a first beam splitter and providing scanned light;

a second beam splitter receiving the scanned light through a scan lens, and illuminating a target through an objective lens;

the objective lens collecting light returned back from the illuminated target and passing the collected light to the second beam splitter;

the second beam splitter providing part of the collected light, as a returned light signal, back through the scan lens and scanner to the first beam splitter;

the first beam splitter deflecting the returned light signal through a focusing lens and a pinhole; and

one or more detectors receiving the light through the pinhole.

23. (original): The optical inspection system as set forth in claim 22, wherein:

the light source provides the beam of light through a pupil;

a multiple beam splitter receives the light through the pupil;

the light received by the scanner includes multiple beams provided by the multiple beam splitter, and the light scanned by the scanner includes multiple scanned beams;

the second beam splitter provides part of the collected light through an imaging lens to a bright field channel detector.

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24. (original): The optical inspection system as set forth in claim 23, wherein the bright field channel detector includes a multiple line CCD camera, and wherein each of the multiple annular beams is received on a separate one of the lines of the multiple line CCD camera.

25. (original): The optical inspection system as set forth in claim 23, further comprising:

a third beam splitter optically disposed between the imaging lens and the bright field channel detector; and

the light from the imaging lens passing through the third beam splitter being focused also on a dark field channel detector.

26. (original): The optical inspection system as set forth in claim 25, wherein the multiple scanned beams are annular beams.

27. (original): The optical inspection system as set forth in claim 25, wherein at least one of the bright field channel detector and the dark field channel detector includes a multiple line CCD camera, and wherein each of the multiple annular beams is received on a separate one of the lines of the multiple line CCD camera.



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28. (original): The optical inspection system as set forth in claim 23, wherein the multiple beam splitter produces the multiple beams with a diffractive optical element having uniform diffraction efficiency.

29. (original): The optical inspection system as set forth in claim 28, wherein the diffractive optical element is a Dammann grating.

30. (original): The optical inspection system as set forth in claim 22, wherein:  
the target is movable in a target movement direction; and  
the scanner scans with a scanning direction not perpendicular to the target movement direction.

Claims 31-59 (canceled).